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Filippo Costanzo

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EXAMINER

MEUCCI, MICHAEL D

ART UNIT

PAPER NUMBER

2142

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/897,708

Applicant(s)

COSTANZO ET AL.

Examiner

Michael D. Meucci

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-17,19-22,24-39,41-44,46-51,53-55,57 and 58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-17,19-22,24-39,41-44,46-51,53-55,57 and 58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to the request for reconsideration filed 13 July 2006.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 21, 43, and 50 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, III (U.S. 5,600,368) hereinafter referred to as Matthews, in view of Fryer (U.S. 6,233,428 B1), Gear et al. (U.S. 5,170,252) hereinafter referred to as Gear, and Sato et al. (U.S. 5,884,004) hereinafter referred to as Sato.

a. As per claims 1, 21, 43, and 50, Matthews teaches: plurality of audio and video sources containing information referring to an event (lines 44-56 of column 3 and Fig. 2); a streaming server, streaming the contents of a first audio file and a first video file from the audio and video sources to a user (lines 1-15 of column 6); user operated control unit communicating with feed distributor and controlling operation of the feed distributor, so as to instruct the feed distributor to switch between video files, and feeding a second video file which is different from the first video file (lines 17-46 of column 5 and Fig. 1, 3, and 6).

Matthews does not explicitly teach: the feed distributor connected between the audio/video sources and the streaming server. However, Fryer discloses: "Broadcast

server 3 is located at a regional office or ISP office capable of serving a number of centers, and is connected to the routers by a broad bandwidth lease line, serving to split the video stream from a camera in the classroom into multiple video streams depending on demand from subscriber computers," (lines 35-40 of column 6 and shown in Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the feed distributor connected between the audio/video sources and the streaming server. "For live events, broadcast to multiple centers, the regional office's video broadcast server 3 will split a single live stream into multiple streams and route each one to a participating center," (lines 25-28 of column 7 in Fryer).

Matthews does not explicitly teach: switching to a second video file without altering the first audio file. However, Gear discloses: "A system (10) has a pipeline (12) comprised of a multi-channel bi-directional video bus (14), multi-channel bi-directional audio bus (16), and a digital interprocessor communications bus (18). The pipeline (12) is equipped with a number of ports (20) where media controller (microprocessor) printed circuit cards (22) can be connected, thus providing a convenient method for connecting media devices (24) to the pipeline (12). In this manner, a media device's video input and output can be optionally connected to any of the video pipes (26) of the video bus (14). Similarly, the media device (24) audio inputs and outputs can be optionally connected to any of the audio bus (16) pipes (26)," (Abstract). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to switch to a second video file without altering the first audio file. "Accordingly, it is an object of this invention to provide a system and method for interconnecting and mixing multiple audio and video

streams associated with multiple media devices in which the different interconnections are made by the system in response to user inputs with the physical connections being transparent to the user. It is another object of the invention to provide such a system and method which will allow video production on a desktop system by a user who is not a trained video technician." (lines 29-40 of column 2 in Gear).

Matthews does not explicitly teach: the first audio file being interleaved with the first video file, the streaming server establishing separate sessions with the plurality of users by sending each user a separate stream; and the second video file being interleaved with the first audio file upon switching to a second video file. However, Sato discloses: "It is possible to avoid intermitting the audio presentation, however, by writing the same (common) audio data to each angle within a multi-angle scene period on the smallest angle switching unit (ILVU) level," (lines 49-53 of column 52). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the first audio file interleaved with the first video file, the streaming server establishing separate sessions with the plurality of users by sending each user a separate stream; and the second video file being interleaved with the first audio file upon switching to a second video file. "As previously described, seamless information presentation can be achieved by arraying the data to assure contiguous information content before and after the connection points in the reproduced data, or by formatting the data in closed data units that are completely reproduced at the switching points," (lines 53-58 of column 52 in Sato).

It is for these reasons that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the feed distributor connected between the audio/video sources and the streaming server; switching to a second video file without altering the first audio file; having the first audio file interleaved with the first video file, the streaming server establishing separate sessions with the plurality of users by sending each user a separate stream; and the second video file being interleaved with the first audio file upon switching to a second video file in the system as taught by Matthews.

4. Claims 2-4, 9, 20, 22-24, 42, 44-46, 48, and 51-53 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, in view of Fryer, Gear, and Sato as applied to claims 1 (2-4, 9, 18, 20), 21 (22-24, 40, 42), 43 (44-46, 48), and 50 (51-53) respectively.

a. As per claims 2, 22, 44, and 51, Matthews teaches: the user-operated control unit is a remote control unit (Abstract, lines 6-17 of column 5 and Fig. 1, 4, 5-7)

b. As per claims 3, 23, 45, and 52, Matthews teaches: the audio and video files are streamed over a network (line 57 of column 6 through line 32 of column 7, and Fig. 4 and 7).

c. As per claims 4, 24, 46, and 53, Matthews teaches: a client-server system (line 57 of column 6 through line 32 of column 7, and Fig. 4 and 7); the control unit located on the client side (lines 6-17 of column 5 and Fig. 1, 4, 6-7); and the streaming

server being located on the server side (line 57 of column 6 through line 32 of column 7 and Fig. 7).

Matthews does not explicitly teach: the feed distributor located on the server side. However, Fryer discloses: "Broadcast server 3 is located at a regional office of or ISP office capable of serving a number of centers, and is connected to the routers by a broad bandwidth lease line," (lines 35-37 of column 6), and shows regional broadcast server 3 on the server side of the system in Fig. 1.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the feed distributor located on the server side. "[The broadcast server] serving to split the video stream from a camera in the classroom into multiple video streams depending on demand from subscriber computers," (lines 38-40 of column 6 in Fryer). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the feed distributor located on the server side in the system as taught by Matthews.

d. As per claims 9 and 48, Matthews teaches: the plurality of audio and video files comprise a single audio file and a plurality of video files, each video file corresponding to a different point of view of the event (lines 16-22 of column 6).

e. As per claims 20 and 42, Matthews teaches: switching occurs in a preprogrammed way (lines 15-29 of column 1).

5. Claims 5-8, 25-28, 47, and 54 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, in view of Fryer, Gear, and Sato as applied to claims 4 (5-8), 24 (25-28), 46, and 53 respectively.

a. As per claims 5 and 25, Matthews teaches: the streaming server and the feed distributor are located on the same machine (line 57 of column 6 through line 19 of column 7 and Fig. 7).

b. As per claims 6 and 26, Matthews teaches: the streaming server and the feed distributor are located on different machines (lines 28-35 of column 5 and Fig. 4).

c. As per claims 7 and 27, Matthews teaches: a plurality of client applications (lines 66-67 of column 7); and client-specific user-operated control units communicating with the feed distributor... (line 57 of column 6 through line 32 of column 7).

d. As per claims 8, 28, 47, and 54, Matthews teaches: the streaming server sends difference streams to different clients, each of said clients switchably controlling said video files independently from the other clients (line 57 of column 6 through line 32 of column 7).

Matthews does not explicitly teach: one audio file and one video file being sent to each of said different clients. However, Gear discloses: "The pipeline (12) is equipped with a number of ports (20) where media controller (microprocessor) printed circuit cards (22) can be connected, thus providing a convenient method for connecting media devices (24) to the pipeline (12). In this manner, a media device's video input and output can be optionally connected to any of the video pipes (26) of the video bus (14). Similarly, the media device (24) audio inputs and outputs can be optionally connected to

any of the audio bus (16) pipes (26). The switching is accomplished through a pair of analog multiplexers (28) whose connection options have been commanded by local microprocessor (30) resident on the media device microprocessor control board (22). The local microprocessor (30) receives instructions for the pipeline switch interconnections through the interprocessor serial communications bus (18),” (Abstract).

It would have been obvious to one of ordinary skill in the art at the time of the applicant’s invention to have one audio file and one video file being sent to each of said different clients. “A software driver interconnects the multiple video and audio devices (24) in different configurations in response to user inputs to a host data processing system so that physical assignments of the device communications on the pipeline (12) are transparent to the user,” (Abstract of Gear). It is for this reason that one of ordinary skill in the art at the time of the applicant’s invention would have been motivated to have one audio file and one video file being sent to each of the different clients in the system as taught by Matthews.

6. Claims 10, 32, 49, and 57 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, in view of Fryer, Gear, and Sato as applied to claims 1, 21, 43, and 50 respectively, further in view of Hannah (U.S. 5,706,054).

Matthews teaches: A/V files are compressed before streaming (lines 16-19 of column 8 and Fig. 4). Since the A/V files are being decoded, they must have been

encoded (compressed) before the server (inherent). Matthews also teaches switching from one file to another in generic fashion, (lines 36-46 of column 5).

Matthews does not explicitly teach: A/V files comprise key frames; and the control unit instructs the feed distributor to switch between the first and second A/V files when a key frame of the second A/V file is encountered.

However, Hannah discloses: "As is well known in the art, the sequence of video frames input at 39 can include one or more key frames, i.e. frames which are not subject to video compression and which often are used as a reference for the start of a particular video scene," (lines 32-3 of column 3).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have A/V files comprising key frames; and the control unit instructs the feed distributor to switch between the first and second A/V files when a key frame of the second A/V file is encountered. "Preferably, AFC filtering for a sequence of video frames starts with a key frame," (lines 36-37 of column 3 in Hannah). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the control unit instruct the feed distributor to switch between the first and second A/V files when a key frame of the second video A/V is encountered in the system as taught by Matthews, Fryer, Gear, and Sato.

7. Claims 11-12 and 33-34 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, in view of Fryer, Gear, and Sato as applied to claims 1 and 21

respectively, further in view of Soepenberget al. (U.S. 6,757,305 B1) hereinafter referred to as Soepenberget.

As per claims 11-12 and 33-34, Matthews does not explicitly teach: the event is described through event parameters; and the user-operated control unit first requests the event parameters...

However, Soepenberget discloses: "The pointer to the cacheable data can for instance be the SI identification of a service event ("television program") or an identification of where to find an interactive application or other kind of data," (lines 3-6 of column 4).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the event described through event parameters; and have the user-operated control unit first requests the event parameters to the feed distributor and then instructs the streaming server to start streaming. "The information on the required storage gives an indication on how much storage the set-top box 14 needs, to cache all the cacheable data that is pointed to by the first element in the record. By using the transport stream-wide or network-wide table/descriptor, the set-top box 14 can quickly get a complete view of all the cacheable data. For each transport stream/network, it simply parses a single SI table/descriptor, and it combines the results. The required bandwidth for broadcasting the table/descriptor can be low, i.e. the table only needs to be broadcast occasionally. The set-top box does not need instant access to the table/descriptor, because an access latency does not affect the performance of a direct interaction with the end-user," (lines 6-18 of column 4 in

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Soepenbergl). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the even described through event parameters; and have the user-operated control unit first requests the event parameters to the feed distributor and then instructs the streaming server to start streaming in the system as taught by Matthews, Fryer, Gear, and Sato.

8. Claims 13, 35, and 58 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, in view of Fryer, Gear, Sato, and Soepenbergl as applied to claims 11, 33, and 12 respectively.

Matthews teaches: a number of different points of view of the event (Fig. 2); a unique logic identifier of each point of view (Table 1 of column 4); an initial point of view (lines 5-7 of column 4)

Matthews does not explicitly teach: textual description of each point of view, a size of main screen window visualizing a current point of view, a stream bandwidth, and a duration of the event.

However, Fryer discloses: a textual description of each point of view (Fig. 4); a stream bandwidth (lines 35-45 of column 6).

Official Notice taken of the size of a main screen window visualizing a current point of view and the duration of the event. Window size, duration, as well as bandwidth, and textual descriptions as disclosed in Fryer were very well known in the art at the time of the applicant's invention. Window size is a parameter highly dependent upon the viewing apparatus and is well known for nearly any computer

system with a graphical interface. Duration is not as important, particularly for live events in which a set length is not given, but it is also well known that for any streamed event, a time limit may be enforced by whomever is streaming the event. Textual descriptions as disclosed in Fryer as very well known in the art and can also be employed as an electronic program guide such as with a digital cable service. The stream bandwidth can be given as a parameter for limiting the stream throughput to prevent extended buffering, buffer under-run, and loss of sync problems. This was also very well known in the art at the time of the applicant's invention. It is known in the art that parameter definitions can be highly dependent upon the system and can comprise nearly any aspect of the system's resources, capabilities, and even the actions of the software/hardware.

It is for these reasons that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to provide parameters comprising a textual description, main screen window size, stream bandwidth, and duration of the event in the system as taught by Matthews, Fryer, Gear, and Soepenber.

9. Claims 14 and 36 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, in view of Fryer, Gear, Sato, and Soepenber as applied to claims 13 and 35 respectively, further in view of Aldred et al. (U.S. 5,649,105) hereinafter referred to as Aldred.

Matthews does not explicitly teach: the logic identifier of each point of view is locally defined.

However, Aldred discloses: "channel_set_id, is a user defined identifier that informs the system that a logical channel belongs to a set of channels," (lines 20-21 of column 28).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the logic identifier of each point of view be locally defined. "The channel_set_id must be unique within an application sharing set, any channel that is to be part of the set must specify the same identifier," (lines 22-24 of column 28 in Aldred). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the logic identifier of each point of view defined locally in the system as taught by Matthews, Fryer, Gear, Sato, and Soepenber.

10. Claims 15 and 37 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, in view of Fryer, Gear, and Sato as applied to claims 1 and 21 respectively, further in view of Gordon et al. (U.S. 6,208,335 B1) hereinafter referred to as Gordon and Burnard et al. (U.S. 5,613,122) hereinafter referred to as Burnard.

It is inherent in the system that the feed distributor contains a stream reader. The feed distributor is in-line in the system as disclosed by the applicant as well as in the system of Matthews. It is also inherent that the streaming server comprises a stream producer in both systems.

Matthews does not explicitly teach: "the feed distributor comprises a servers session manager, a theatre descriptor, and a stream reader; the streaming server

comprising a stream producer; and the user-operated control unit comprises an interface builder.

However, Gordon discloses: "The information server 108 is coupled to the video session manager via data path 116, synchronization clock path 118 and control path 120. The server 108 provides data streams on path 116 and a synchronization clock on path 118 in response to requests for information from the video session manager on path 120," (lines 51-56 of column 4). Gordon also teaches: "The function of the navigator is generated through the use of Navigator descriptor files," (lines 32-33 of column 8).

Burnard discloses: "A user interface builder program allows a user to graphically design windows, dialogs, and view hierarchies," (lines 31-32 of column 29).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the feed distributor comprise a session manager. "The video session manager 122 accomplishes all of the transmission interface requirements of the system 100," (lines 59-60 of column 4 in Gordon). It would also have been obvious to have the feed distributor comprise a theatre descriptor. "These files are used as the basis for construction of all navigator applet screens. A navigator descriptor file defines specific objects (e.g., graphical bitmap, audio, animation and the like) to be used, their physical location on the navigator menu screen, and their interactions with the subscriber's remote control actions. The navigator asset builder software program uses the navigator descriptor files to generate the final pseudo MPEG bitstream that is sent to the set top terminal. The asset builder reads the objects as defined by the

navigator asset builder and combines them with the appropriate control information also contained in the navigator descriptor files,” (lines 33-45 of column 8 in Gordon). It is presumed by the examiner that “theatre” is to be used as a location descriptor which is fully disclosed by Gordon.

It would have been obvious to one of ordinary skill in the art at the time of the applicant’s invention to have the user-operated control unit comprise an interface builder. “By choosing various User Interface (UI) elements from a menu or palette, a user can build a window or dialog that can be used from another program,” (lines 33-35 of column 29 in Burnard).

It is for this reason that one of ordinary skill in the art would have been motivated to have the feed distributor comprise a session manager and a theatre descriptor and have the user-operated control unit comprise an interface builder in the system as taught by Matthews, Fryer, Gear, and Sato.

11. Claims 16-17 and 38-39 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, in view of Fryer, Gear, and Sato as applied to claims 1 and 21 respectively, further in view of Hazra (U.S. 6,510,553 B1).

a. As per claims 16 and 38, Matthews does not explicitly teach: streaming server streams additional A/V files which are output on secondary windows on the user screen, the secondary windows being different from a main window where the first A/V file is output.

However, Hazra discloses: "Data files corresponding to the subscribed layers of the first and second sources may be received in a stream over the fixed bandwidth communications path, output files may be produced which correspond to the received data files for the first source, and output files may be produced corresponding to the received data files for the second source. The output files for the first source may be displayed in a first portion or window of a display, and output files for the second source may be simultaneously displayed in a second portion or window of the display, thereby providing a picture-in-picture (PIP) display for streaming digital video," (Abstract).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the streaming server stream additional A/V files, which are output on secondary windows on the user screen, the secondary windows being different from a main window where the first A/V file is output. "The two decoded video sequences from these layers may be displayed in the PIP format as shown. The client system also subscribes to an audio stream corresponding to the primary source (at time T1, this is from file source A). At some time T262, the user may decide to switch the focus between the two windows. This may be indicated by double clicking a computer mouse button when a mouse pointer is over the PIP area, for example, although any method of indicating input to the graphical user interface may be employed. As a result of the switch indication, the client changes the current subscription of sources to accept only the base layer 58 of file source A, but to accept the base layer 60 and the enhancement layers 64 of file source B. This results in a change to the display whereby video data files from file source B are the primary source shown in the first portion 52 of

the screen and video data files from file source A are the secondary source shown in the second portion 54 of the screen. The switch may be delayed by a small time interval so that subscription changes may be synchronized with key frames in the stream that are assumed to be present at regular intervals. At the time of the switch, the audio subscription may also be changed to maintain the association with the appropriate source selected as the primary source,” (lines 31-51 of column 7 in Hazra).

It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the streaming server stream additional A/V files, which are output on secondary windows on the user screen, the secondary windows being different from a main window where the first A/V file is output in the system as taught by Matthews, Fryer, Gear, and Sato.

b. As per claims 17 and 39, Matthews does not explicitly teach: additional A/V files occupy bandwidth which is reduced when compared with the bandwidth occupied by said first A/V files.

However, Hazra discloses: “At time T1 50, a user of client system 38 selects the multimedia content from file source A 32 as the primary source of the stream and the multimedia content from file source B 34 as a secondary source of the stream. As a result of this selection, video data from the primary source may be shown on a display in a first portion 52 of the screen, and video data from the secondary source may be shown on the display in a second portion 54 of the screen, thereby providing PIP capability,” (lines 8-17 of column 7).

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It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have additional A/V files occupy bandwidth which is reduced when compared with the bandwidth occupied by said first A/V files. "The first portion may be larger than the second portion because more information for display is being received for the primary source as compared to the secondary source," (lines 17-20 of column 7 in Hazra).

It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have additional A/V files occupy bandwidth which is reduced when compared with the bandwidth occupied by said first A/V files in the system as taught by Matthews, Fryer, Gear, and Sato.

12. Claims 19 and 41 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, in view of Fryer, Gear, and Sato as applied to claims 7 and 27 respectively, further in view of Kunda/McCanta (Google Groups).

Matthews does not explicitly teach: a user controls switching for a number of other users. However, McCanta questions: "

> I don't know what would hold you
>back from doing this. You would simply be limited to having the same
>channel on all of the TV's without buying more special equipment. That's
>where the catch is, as I understand things."

In response, Kunda discloses: "If individual channel selection at the various tv's is not needed, then the output from the receiver to the tv may be split (using the \$15

splitter/amps you mentioned) to as many tv's as desired. If you make sure the satellite receiver you buy uses a UHF remote, then changing channels from any tv is quite simple."

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have a user controlling the switching for a number of other users. Motivation comes in Kunda's response in that the channel may be changed on multiple televisions that are connected to a single receiver via a splitter. It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have a user controlling the switching for a number of other users in the system as taught by Matthews, Fryer, Gear, and Sato.

13. Claim 29 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, in view of Fryer, Gear, and Sato as applied to claim 21, further in view of Danneels et al. (U.S. 5,410,698) hereinafter referred to as Danneels.

Matthews does not explicitly teach: the plurality of audio and video files comprise a single video file and a plurality of audio files.

However, Danneels discloses: "For example, the video and English audio data streams of the first television program may be related together to form a first channel. That same video data stream may be related to the Spanish audio data stream to form a second channel," (lines 39-43 of column 4).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the plurality of audio and video files comprise a single

video file and a plurality of audio files. "Multicast system 100 comprises a single server 102 and multiple clients 104 linked by network 106. Server 102 captures and posts data on network channels, with any number of clients 104 independently selecting channels for receipt and play," (lines 10-15 of column 4 in Danneels).

It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the plurality of audio and video files comprise a single video file and a plurality of audio files in the system as taught by Matthews, Fryer, Gear, and Sato.

14. Claims 30-31 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, in view of Fryer, Gear, Sato, and Danneels as applied to claim 29.

As per claims 30-31, Matthews does not explicitly teach: each audio file corresponds to a different listening point of the event and a different audio source.

However, Danneels discloses: "Server 102 is capable of capturing analog audio and video files from three different sources: (1) files generated locally by camera 108, (2) files received by antenna 110 from a remote source, and (3) recorded files from VCR 112," (lines 16-20 of column 4).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have each audio file correspond to a different listening point of the event and a different source. "Multicast system 100 comprises a single server 102 and multiple clients 104 linked by network 106. Server 102 captures and posts data on

network channels, with any number of clients 104 independently selecting channels for receipt and play,” (lines 10-15 of column 4 in Danneels).

It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have each audio file corresponds to a different listening point of the event and a different source in the system as taught by Matthews, Fryer, Gear, and Sato.

15. Claims 55-56 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, in view of Fryer, Gear, and Sato as applied to claim 50, further in view of Danneels.

Matthews does not explicitly teach: the plurality of audio and video files comprise a single video file and a plurality of audio files; and each audio file corresponds to a different listening point of the event.

However, Danneels discloses: “For example, the video and English audio data streams of the first television program may be related together to form a first channel. That same video data stream may be related to the Spanish audio data stream to form a second channel,” (lines 39-43 of column 4). Danneels also discloses: “Server 102 is capable of capturing analog audio and video files from three different sources: (1) files generated locally by camera 108, (2) files received by antenna 110 from a remote source, and (3) recorded files from VCR 112,” (lines 16-20 of column 4).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the plurality of audio and video files comprise a single

video file and a plurality of audio files. "Multicast system 100 comprises a single server 102 and multiple clients 104 linked by network 106. Server 102 captures and posts data on network channels, with any number of clients 104 independently selecting channels for receipt and play," (lines 10-15 of column 4 in Danneels).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have each audio file correspond to a different listening point of the event and a different source. "Multicast system 100 comprises a single server 102 and multiple clients 104 linked by network 106. Server 102 captures and posts data on network channels, with any number of clients 104 independently selecting channels for receipt and play," (lines 10-15 of column 4 in Danneels).

It is for these reasons that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the plurality of audio and video files comprise a single video file and a plurality of audio files and have each audio file correspond to a different listening point of the event and a different source in the system as taught by Matthews, Fryer, Gear, and Sato.

16. Claims 59-62 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews, in view of Fryer, Gear, and Sato as applied to claims 1, 21, 43, and 50 respectively.

As per claims 59-62, Matthews does not explicitly teach: the first and second audio files are audio files and the first and second video files are video files. However, Official Notice is taken of the audio/video files being audio/video files. It would have

been obvious to one of ordinary skill in the art at the time of the applicant's invention to store an audio/video file in Matthews as a file for storage purposes or for transport across a computer network. Motivation comes simply from the formatting requirement necessitated by computer networks. It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to store and audio/video file as a file in the system as taught by Matthews, Fryer, Gear, and Sato.

Response to Arguments

17. Applicant's arguments filed 13 July 2006 have been fully considered but they are not persuasive.

18. (A) Regarding claim 1, the applicant contends that Fryer does not teach: the streaming server establishing separate sessions with the plurality of users by sending each user a separate stream. The examiner respectfully disagrees.

As to point (A), the applicant argues that Fryer discloses a multicast method, not a unicast one. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., unicast mode) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Additionally, the examiner points out that the sessions as disclosed in Fryer are indeed separate sessions by nature. The broadcast server as disclosed in Fryer is

not simply replicating a stream as described in lines 47-53 of column 6 which describes user interaction for determining which content they would like to view: "The video stream generated by a camera may, in addition to being supplied directly to broadcast server 3, be recorded for delayed broadcast during periods of inactivity at the center or private-time for center workers, or as part of a menu of viewing options for the parent, who may be given the option of viewing a live activity or replaying an earlier activity." As such, the rejection remains proper and is maintained by the examiner.

19. (B) Regarding claim 1, the applicant contends that Sato does not teach: upon switching, the feed distributor feeds to the streaming server a second video file... without altering the first audio file, the second video file being interleaved with the first audio file. The examiner respectfully disagrees.

As to point (B), the applicant argues that Sato discloses the user "jumps" on a second video file and that the second video file cannot be interleaved with the first audio file. The examiner points out that the methodology set forth in Sato does not alter the first audio signal upon switching (as claimed) and that it merely describes writing a single audio file to multiple video files at the feed distributor, thereby multiplexing the signal and never altering the first audio file. As such, the rejection remains proper and is maintained by the examiner.

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20. (C) Regarding claim 1, the applicant contends that one of ordinary skill in the art would not be motivated to combine Sato with Fryer or the other documents cited.

The examiner respectfully disagrees.

As to point (C), in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the addition of Sato as a reference in the rejection was incorporated to obviate the interleaving of audio and video files at the switching points (see lines 1-5 of page 5 of this action for motivation regarding the addition of Sato).

(D) The applicant failed to traverse the examiner's assertion of official notice. The common knowledge or well-known in the art statement is taken to be admitted prior art because applicant either failed to traverse the examiner's assertion of official notice or the traverse was inadequate (see MPEP 2144.03).

Conclusion

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Brooks et al. (U.S. 7,047,305 B1) discloses broadcasting AV data in a WAN.

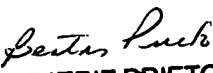
23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Meucci at (571) 272-3892. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell, can be reached at (571) 272-3868. The fax phone number for this Group is 571-273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [michael.meucci@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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